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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,934	08/27/2001	Scott R. Burge	5968	4045

7590

08/23/2005

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EXAMINER

SIEFKE, SAMUEL P

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,934

Applicant(s)

BURGE ET AL.

Examiner

Samuel P. Siefke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: Receice [sic] should be receive . Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3,5-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A sample chamber is referred to in both diverting water paths first and second. It is indefinite and unclear as to how many sample chambers are being claimed, and if only 1 there needs to be relationship between the first flow path, the second flow path and the sample chamber.

It is unclear and indefinite to recite a means to reunite said first and second flow paths into a single flow path without putting the reuniting means between two structures, e.g. reuniting means between calibration assembly and of analytical assembly.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 3, 5-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morton (USPN 5,646,863) in view of Burge (USPN 5,708,220).

Morton discloses a water monitoring system and method that comprises a diversion means (fig. 3, ref. 20a, 20b; two arrows) that diverts sample water to radiation counter (fig. 3; col. 8, lines 28-34) via a first flow path, or to a sample pretreatment (30) via a second flow path. In column, 8, lines 15-27, Morton further lists other possibilities besides a radiation counter as other water quality measurements devices that can be used, all of which are analysis performed on the sample (pH, temperature). The groundwater 20a or surface and industrial water 20b is pumped through water filter 90, filtering out any sediment that might exist in groundwater 20a or surface water and industrial water 20b, and is collected in water chamber 92, where the pH and

temperature of the water is measured at 78. Water chamber 92 can also house additional sensors for the purpose of measuring other water quality parameters (not shown). Groundwater 20a or surface and industrial water 20b is then combined with acid solution 80 in order to make fresh water electrolytic. The combined solution is then routed to sample pretreatment 30 which contains oxidation module 96 and reduction module 98. Here the metal is stripped from the sample water (col. 8, line 28- col. 9, line 12). A standard solution containing known metal concentrations is pumped from standard solution pump 72 into the water stream output from the pretreated sample. Finally the concentration of metal concentration in the water sample from the second flow path is determined (col. 9, lines 24-28).

Morton does not teach a calibration loop, a valve loop or that the two diverted water samples reunite.

Burge discloses a liquid sampling device that comprises a sampling device within a well casing (col. 4, lines 11-26) and comprising a valve means (col. 5, lines 18-21) and water level sensor (col. 5, lines 30-33) means to provide a ground water sample of a predetermined volume (col. 4, line 23). A surface sample receiving and control facility includes a sample receiver connected to the sampling device through a sample transfer tube and control means connected to the sampling device for operating the device in its sample collecting and transferring modes. The ground level sample receiver may itself include means for analyzing the received liquid samples directly within the receiver or the sample may be removed and transported to a laboratory for further analysis (col. 3, lines 4-35). It would have been obvious to one of ordinary skill

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in the art at the time the invention was created to modify Morton to use a liquid sampling device of Burge in order to provide easy access to water sampling for determination of analyte concentration. With respect to the standard solution being delivered in a predetermined amount, Morton discloses this but does not teach the use of a calibration loop (or sample loop). It is known in the art that the use of sample loops are other ways to provided predetermined amounts of a fluid. Therefore it would have been obvious to modify Morton to use a calibration loop to deliver a predetermined amount of standard solution to the water sample.

Regarding a means to reunite the two streams into a single flow path. It would have been obvious to one having an ordinary skill in the art to modify Morton to allow for a sample flow to reunite with the water flow from the first path to reduce the amount of waste water, this would provide a more environmentally friendly apparatus.

Response to Arguments

Applicant's arguments with respect to claims 1-3,5-17 have been considered but are moot in view of the new ground(s) of rejection.

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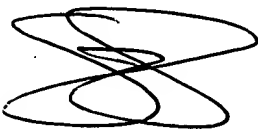
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke



August 19, 2005


Jill Warden
Supervisory Patent Examiner
Technology Center 1700